



HEAVY DUTY RFID TAG PUSH TAG

APPLICATIONS

- High Value Metal Applications
- Aerospace Applications
- Military Applications
- Chemical Areas

FEATURES

- Passive RFID UHF Tag
- Up to 2 m Reading Range
- Proprietary impact resistant filled Nylon
- IP68 Protection Class
- ATEX Compliant

RFID OPTIONS

- EPC Global Class1 Gen2; ISO 18000-6C
- ISO 17665
- ISO 11135

PRODUCT DESCRIPTION

The Push Tag from iDTRONIC provides automatic identification and tracking capabilities in a tiny square housing with an integrated screw. It is compliant to the EU directives on explosion protection with ATEX. It covers equipment and protective systems intended for use in explosion-hazard atmospheres.

The Tag consists of proprietary impact resistant filled nylon and is particularly resistant against most acids, solvents and bases. It was designed for high temperatures from - 50 °C up to + 200 °C. Thanks to the IP68 Protection Class it has an excellent resistance against UV and sea water immersion.

The RFID UHF Tag works in UHF Frequencies of EU: 865 – 869 MHz and US: 902 – 928 MHz and has a reading range of up to 2 meters. The supported Standards are EPC Global Class1 Gen2; ISO 18000-6C, ISO 17665 and ISO 11135.

The Push Tag can be mounted to the surface of the part by pushing the mounting prong on the back of the tag into a 7 mm hole on metal returnable containers, metal canisters, metal pipes or high value metal items.

TECHNICAL DATA

* *READING DISTANCE DEPENDS ON TAG TYPE AND ORIENTATION.*

ELECTRICAL SPECIFICATIONS	
Operating Frequencies	UHF (EU: 865 – 869 MHz US: 902 – 928 MHz)
Interface Protocol	EPC Global Class1Gen2 ISO/IEC 18000-6C
Operating Mode	Passive
Reading Range	Real-world: 1 – 2 meters* Lab environment: 7 meters*
IC Type	Impinj Monza 4 (128 Bytes)
Memory Content	Unique 96-bit number encoded
Extended Memory	512 Bytes
TID	Factory-programmed, non-changeable, unique 64-bit ID

MECHANICAL SPECIFICATIONS	
Dimensions	Overall Height: 27.6 mm Tag Only: 25.4 × 25.4 mm Height: 10 mm Mounting Prong: 17.6 × 6.7 mm ø 7 mm
Weight	20 g
Housing Material	High temperature plastic: Proprietary impact resistant filled nylon
Housing Colour	Black
Applicable Surfaces	Metal pipes, metal returnable containers, metal canisters, metal pallets, high value metal items, aerospace applications, military applications
Mounting Option	Pushing the mounting prong on the back of the tag into a 7 mm hole

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	- 50 °C to + 200 °C
Temperature Cycling Test	200 °C continuous, for 30 days
Protection Class	IP 68
Weather Resistance	Excellent, incl. UV-resistance and continuous sea water immersion
Pressure Resistance	30,000 psi for 30 days
Chemical Resistance	<u>No physical or performance changes in:</u> - Salt water - NaOH - Sulfuric acid - Motor oil <u>Generally good against:</u> - Most solvents - Most acids and bases

APPLICABLE STANDARDS	
ISO 18000-6C	Impinj Monza 4
ISO 17665	Sterilization of Health Care Products – Moist Steam
ISO 11135	Sterilization of Health Care Products – Ethylene Oxide
RoHS 2	2011/65/EU
ATEX Compliant	

PERSONALIZATION OPTIONS	
<ul style="list-style-type: none"> • Tag Pre-Encoding • Laser-Engraving 	

APPLICATION EXAMPLES

CHEMICAL AREAS



The Push Tag of iDTRONIC is especially suitable for harsh environments at chemical areas with high temperatures.

The robust housing of the Tag is very resistant to chemicals like salt water, NaOH, sulfuric acid, motor oil and most solvents, acids and bases.

It can be securely screwed into a hole on pipes or containers.

MILITARY AREAS



The Push Tag can be used for military purposes within harsh environments under high pressures.

The RFID Tag is particularly resistant to the most common chemicals. The identification of pipes with metallic surfaces can be secured with this Push Tag. High pressures within bomb-hazards withstands the tag till 30,000 psi.

The Tag can be easily integrated on any pipe or other item by screwing it into a hole.

INSTALLATION INSTRUCTIONS

The Push Tag must be mounted with the prong pushed through a suitably-sized hole, and flush with the mounting surface. If the tag is not flush with the mounting surface, it might affect the tag's performance.

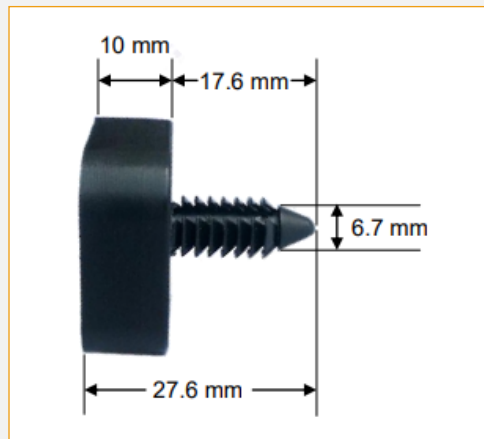
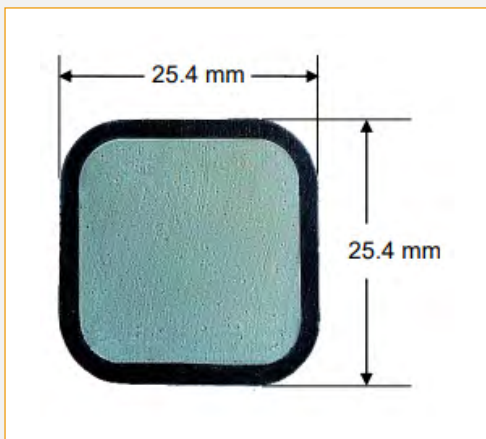
- Drill a hole approximately 7 mm in diameter in the surface that the tag is to be mounted on to.

NOTE: The mounting prong needs at least 18 mm of clearance (depth – not counting the width of the mounting surface [if mounting to thin sheet stock]) to mount the tag properly.

- Push the mounting prong into the hole until the tag is flush with the surface. Done!

The Tags performance depends on the shape of the metal object and the tags placement on that surface. Testing is recommended to verify performance in each use-case.

MECHANICAL VIEWS



ORDER CODES

VERSION	ORDER CODE
Impinj Monza 4 (128 Bytes)	ST-UHF-TR-EaT-101
Extended Memory: 512 Bytes	ST-UHF-TR-EaT-101-EXM

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